

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

In the claims

Claim 1 is amended to more clearly set forth the present invention, by pointing out that none of the fibers are clamped or fixed, and that free ends opposite the far ends rest on an underlying support. Support for this amendment is found at least at lines 8-15 of page 4 and lines 13-16 of page 10, as well as in Figures 1, 3-5, 7-11, and 13, of the original specification.

Rejection of claims 1-6, 8, 10, 12-14, and 16 under 35 U.S.C. § 102(b)

Claims 1, 3, 4, 12-14, and 16 presently stand rejected as being anticipated by Weihrauch (U.S. 5,176,427), and claims 2, 5, 6, 8, and 10 are rejected as being unpatentable over Weihrauch. These rejections are respectfully traversed for at least the following reasons.

Claim 1 recites a method for manufacturing brushes wherein brush fibers are put into contact with a processing equipment while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed, and wherein free ends opposite said far ends rest on an underlying support.

It is respectfully submitted that Weihrauch does not disclose or suggest a method for manufacturing brushes wherein brush fibers are put into contact with a processing equipment while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed. On the contrary, Weihrauch discloses brush fibers being fixed, such as in a clamping device.

According to the rejection, the fibers are shown held loosely together in Weihrauch's Figs. 5a-5c. However, this is directly contradicted by Weihrauch's

disclosure, which identifies the element 7 shown holding the fibers in each of Figs. 5a-5c as a fixing device 7. As an alternative, Weihrauch provides that instead of the fixing device 7, bristle bundles 9 may be fixed to a bristle carrier of a brush. In no instance does Weihrauch disclose or suggest that the bristles are not fixed, or can be held loosely together wherein none of the fibers are clamped or fixed.

Moreover, Weihrauch clearly sets forth that Weihrauch's invention "relates to a process and apparatus for treating bristles of brushes, particularly on and in the vicinity of the use-side bristle ends, in that the *bristles*, which are optionally combined into bundles, *are fixed* at a distance from their use-side ends" (*Weihrauch*; col. 1, lines 5-10)(emphasis added). Further, Weihrauch states that "For the treatment of bristles of brushes, *the bristles are fixed* in spaced manner from the use-side ends" (*Weihrauch*; Abstract)(emphasis added).

Therefore, Weihrauch clearly teaches that bristles are fixed. Further, Weihrauch does not disclose or suggest that free ends of the fibers, opposite far ends that are subject to a processing, rest on an underlying support.

In the recent Office action, the examiner notes that "the examiner is aware that the bristles [of Weihrauch] are clamped however element 10 is what the examiner is calling the brush body." (see page 10 of the action). The examiner concludes that, because element 10 is movable with respect to the bristles, "therefore, clearly the bristles are loosely held within the brush body."

However, it remains the case that, as the examiner recognizes, Weihrauch teaches that the bristles are clamped. Claim 1 recites that, during a processing step wherein the fiber ends are brought into contact with a processing equipment, "the fibers and the processing equipment are mutually put into contact while the fibers are being held loosely together, *wherein none of the fibers are clamped or fixed.*" (emphasis added). Even if the bristles are "held loosely" by element 10, they are clamped (or fixed) as the examiner recognizes and as Weihrauch clearly sets forth.

Because Weihrauch teaches that bristles are fixed for the treatment of the bristles, Weihrauch does not teach every element of claim 1, and therefore Weihrauch does not anticipate claim 1 or any of claims 2-20 which depend from claim 1. Accordingly, it is respectfully submitted that claims 1-20 are allowable over the cited reference, and withdrawal of the rejection is respectfully requested.

Rejection of claims 1, 3, 4, 12-15, and 17-20 under 35 U.S.C. § 102(b)

Claims 1, 3, 4, 12-15, and 17-20 presently stand rejected as being anticipated by Boucherie (U.S. 5,728,408) (hereafter Boucherie '408). This rejection is respectfully traversed for at least the following reasons.

It is respectfully submitted that Boucherie '408 does not disclose or suggest a method for manufacturing brushes wherein brush fibers are put into contact with a processing equipment while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed.

Boucherie '408 does not describe any method for finishing processing bristle ends at all, except for a reference with respect to Fig. 9 that "by step-wise rotation of the disk 80, bundles of fibres contained in the pockets 82 are indexed to a number of processing stations 86 where the free ends of the fibres are subjected to a grinding operation to rounden the fibre ends. The processing stations 86 are followed by one or more processing stations 88 which are fibre end polishing stations." (Boucherie '408; col. 7, lines 20-27).

However, no description at all is provided of processing stations 86 and 88 themselves. Boucherie '408 is entirely silent with respect to how the grinding and polishing are performed, and as to how the fibers are held or clamped during such processing. There is clearly no teaching or suggestion that the fibers are held loosely during either the grinding or the polishing process.

Therefore, Boucherie '408 cannot be construed to teach or suggest that the fibers are processed (put in contact with a processing equipment) while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed.

Lacking any such details of how a grinding or polishing operation is performed, Boucherie '408 fails to disclose or suggest that fibers are subject to the grinding and polishing while the fibers are held loosely and are not clamped or fixed.

Therefore, Boucherie '408 does not teach or suggest every element of claim 1, and accordingly Boucherie '408 does not anticipate claim 1 or any of claims 2-20 which depend from claim 1. Accordingly, it is respectfully submitted that claims 1-20 are allowable over the cited reference, and withdrawal of the rejection is respectfully requested.

Rejection of claims 2, 5, 6, 8, and 10 under 35 U.S.C. § 103(a)

Claims 2, 5, 6, 8, and 10 presently stand rejected as being unpatentable over Weihrauch, and as being unpatentable over Boucherie '408 in view of Zahoransky et al. (U.S. 5,431,484).

It is respectfully submitted that claims 2, 5, 6, 8, and 10 are allowable over Weihrauch as discussed above.

Further, it is respectfully submitted that the combination of Boucherie '408 and Zahoransky fails to form a prima facie case of obviousness of claims 2, 5, 6, 8, and 10, because these references in combination fail to disclose each and every element set forth in claim 1, from which claims 2, 5, 6, 8, and 10 depend.

As discussed above, Boucherie '408 does not disclose or suggest that fibers are held loosely, *wherein the fibers are not clamped or fixed*, during processing of the ends of the fibers. Zahoransky explicitly provides that a clamping grip 8 securely clamps the bristles (see Zahoransky; col. 3, line 66 – col. 4, line 1). Therefore, Zahoransky fails to supplement the deficiencies of Boucherie '408 as described above with respect to claim 1, and therefore claims 2, 5, 6, 8, and 10 are allowable over Boucherie '408 and Zahoransky. Accordingly, withdrawal of this rejection is requested.

Rejection of claims 7, 9, and 11 under 35 U.S.C. § 103(a)

Claims 7 and 9 presently stand rejected as being unpatentable over Weihrauch or Boucherie '408 in view of Zahoransky, and claim 11 is rejected as being unpatentable over Weihrauch or Boucherie '408 in view of U.S. 6,290,303 (Boucherie '303). These rejections are respectfully traversed for at least the following reasons.

With respect to the rejection of claims 7 and 9, the lack of teaching or suggestion, by Weihrauch, Boucherie '408, and Zahoransky, of the aspect of the present invention "wherein none of the fibers are clamped or fixed, and wherein free ends opposite said far ends rest on an underlying support" is discussed in detail above. It is therefore respectfully submitted that these references fail to form a prima facie case of obviousness of claims 7 and 9 which depend from claim 1 and are therefore allowable over any combination of Weihrauch, Boucherie '408 and Zahoransky for the reasons set forth above.

With respect to the rejection of claim 11, it is respectfully submitted that Boucherie '303 does not disclose or suggest any sort of processing of fiber ends by bringing them into contact with a processing equipment. Therefore, Boucherie '303 cannot provide any teaching or suggestion that, during such a processing, the fibers and the processing equipment are mutually put into contact while the fibers are being held loosely together.

While the examiner argues that "melting of the ends of the bristles can be considered a processing means since there is a process occurring on the end of the bristles, i.e. melting," Applicant respectfully submits that Boucherie '303 nonetheless fails to disclose or suggest that ends of the fibers are subjected to a processing by **bringing them into contact with** a processing equipment, as set forth in claim 1.

Boucherie '303 discloses that "the free extremities of the fibers, as represented, for example, in FIG. 32, will preferably be melted together, for example, under the influence of heat." (Boucherie '303; col. 5, lines 43-46). Referring to FIG. 23 of Boucherie '303, it is clearly seen that there is no contact between the fiber ends and a processing equipment.

Since Boucherie '303 does not disclose or suggest any sort of processing of fiber ends by bringing them *into contact with a processing equipment*, Boucherie '303 does not provide any teachings relevant to how fibers may be handled during such contact processing.

Further, Boucherie '303 teaches that "when the fiber bundles 4, in the manner as described in the foregoing, are provided in a holder 10, the free extremities of the fibers, as represented, for example, in FIG. 23, will preferably be melted together, for example, under the influence of heat, whereby it is obtained at the same time that, in this way, the fiber bundles are retained in the holder" (*Boucherie '303*; col. 5, lines 42-47). Thus, according to Boucherie '303 the fibers become fixed to the holder by a non-contact heat processing step. This cannot be said to provide any teaching or suggestion that the fibers and a processing equipment are mutually put into contact while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed.

Accordingly, it is respectfully submitted that Boucherie '303 fails to supplement the deficiencies of Weihrauch and Boucherie '408 with respect to the elements of claim 1 discussed above. Therefore, it is respectfully submitted that claim 11 is allowable over the cited references, and withdrawal of the rejection is requested.

Double patenting

Claim 1 presently stands rejected on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claim 1 of U.S. 6,837,548, claim 1 of U.S. 6,406,099, claims 1, 3-5, and 8 of U.S. 6,702,394, and claims 1 and 2 of U.S. 6,372,163, each in view of Weihrauch. Further, claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claim 1 of co-pending application 10/989,272. These rejections are respectfully traversed for at least the following reasons.

The examiner has acknowledged that each of 6,837,548, 6,406,099, 6,702,394, 6,372,163, and 10/989,272 fails to teach that "the fibers are held loosely in the brush body." It is respectfully submitted, moreover, that none of these references teaches or

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suggests a method wherein "the fibers and the processing equipment are mutually put into contact while the fibers are being held loosely together, *wherein none of the fibers are clamped or fixed*" as required by claim 1.

As described above, Weihrauch fails to disclose or suggest that fibers are held loosely, wherein none of the fibers are clamped or fixed, during processing. On the contrary, Weihrauch teaches that the bristles are fixed or clamped as the examiner has acknowledged.

Therefore, none of 6,837,548, 6,406,099, 6,702,394, and 6,372,163, in combination with Weihrauch, form a prima facie case of obviousness of the present invention, and accordingly withdrawal of these rejections is requested.

Conclusion

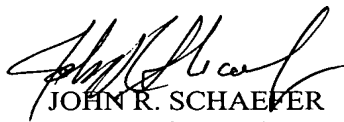
In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-20 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

BACON & THOMAS, PLLC
625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314-1176
Phone: (703) 683-0500

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Respectfully submitted,


JOHN R. SCHAEFER
Attorney for Applicant
Registration No. 47,921